
LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA.

BULLETIN No 372

BORAX

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BORAX

OTTAWA, 18th May, 1917

J. U. VINCENT, Esq., K. C.
Deputy Minister of Inland Revenue,

Sir,

I beg to hand you a report upon fifty-five (55) samples of Borax purchased by our inspectors in October and November of last year.

This article is chiefly employed for laundry purposes, and most of the samples herein reported were so used and labelled as intended especially for such use.

Borax is, however, very commonly employed as a food preservative, particularly in meats, meat products, butter and cream. It is also used as a mouth wash, as an eye-lotion, and for general antiseptic purposes. For such use, it should be free from more than traces of arsenic, and should, of course, be true to name.

An Order in Council of 24th Oct. 1912 (published as G. 1048) limits the amount of arsenic permissible in borax for use in foods, to 4 parts per million. Such a degree of purity is perhaps not to be expected in borax as employed for laundry purposes.

The addition of carbonate of soda to borax is only explicable on the assumption that the manufacturer desires to cheapen his product, or to mislead the purchaser with a view to enhanced profit to himself. Unless declaration of the presence of carbonate of soda is made at the time of sale, either by verbal statement or by statement on the label, such admixture must be regarded as adulteration under the Act. (section 3, (b))

Borax is quoted on the New York market on 5th May, 1917, at \$8.00 per 100 lbs; Bicarbonate of Soda, at \$1.95 per 100 lbs and Sal Soda, at \$1.05 per 100 lbs. (Metallurgical & Chemical Engineering, Vol. XVI, No. 10 p. 619)

It may be assumed that manufacturers intending to introduce borax into foods as a preservative, would not purchase the article without a guarantee of its freedom from arsenic; in other words, that borax as sold for laundry purposes should not be expected to meet the rigid standard set for borax as a food preservative.

A considerable number of the samples herein reported, are found to contain much more arsenic than 4 parts per million; some indeed showing from 50 to 100 parts per million. While an article of this quality may be decidedly objectionable or even dangerous, if employed in cream or butter, I have merely drawn attention to those cases in which excess of arsenic has been found, without charging adulteration under the Act. It may be sufficient to emphasize the fact that borax for food preservation, should be purchased with a trustworthy guaranty of purity, and that ordinary commercial borax is quite unfit for such a purpose.

The following synopsis of results, presents the matter of this report at a glance :—

Found genuine, and without excess arsenic.....	21	samples.
Found genuine but with excess arsenic.....	19	"
Found to contain carb. soda, declared.....	2	"
Found to contain carb. soda without declaration and therefore adulterated.....	13	"
Total.....	55	"

I beg to recommend publication of this report as Bulletin No. 372

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL,

Chief Analyst.

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Date of Collection	Nature of sample	Number of Sample	Name and Address of Vendor	Cost.		Name and address of Manufacturer or Furnisher as given by the Vendor	
				Quantity	cts.	Manufacturer	Furnisher

DISTRICT OF NOVA SCOTIA —

1916							
Nov.	24	Powdered Borax	76351 S. F. Courtney & Co., Halifax, N. S.	3 pkgs	45	Pure Gold Mfg. Co., Toronto	Bauld Bros. Ltd., Halifax, Mfrs.
"	26	"	76352 R. B. Aeston & Co., Halifax N. S.	"	12	Litster Pure Food Toronto	"
"	28	"	76353 Kinleys Ltd., Halifax N.S. . .	"	15	Nat., D. & C. Co., Halifax	"
"	29	"	76354 Nat. Drug & Chem. Co., Halifax	"	15	Unknown	Wimshol-land Co., Montreal
"	29	"	76355 McLeod & Balcom, Halifax, N. S.	"	15	"	N. D. & O. Co. Halifax

DISTRICT OF NEW BRUNSWICK —

Oct.	1	Packaged Borax	69546 2. Barkers Ltd., St. John N. B.	3 pkgs	30	S. F. Lawson & Co. London, Ont.	"
"	12	"	69547 Nat. Drug & Chem. Co Ltd St. John, N. B.	"	"	Vendors	"
"	18	"	69548 Boyd Bros, St. Stephen, N.B.	"	15	Litster Pure Food Co., Toronto	"
"	24	"	69549 John McKnight, Fredericton N. B.	"	"	Alpha Chem. Co. Kitchener, Ont.	"
"	25	"	69550 J. B. Snowball Co., Ltd Ch-N. B.	"	30	White Swan Co. Toronto	"

DISTRICT OF QUEBEC CITY—

Oct.	18	Borax	56817 Jules Bélanger, Beauport, Quebec	3-4lb	15	Litsters	Langlois & Paradis
"	18	"	56818 Eugène Doucet & Cie, Beauport, Quebec	"	"	Dr. Morin & Cie	N. Turcotte
"	19	"	56819 Jos. R. Giroux, St. Louis de Courville, Quebec	"	"	Alpha Chem. Co.	"
"	20	"	56820 Cantin & Frère, 271 rue St-Joseph, Quebec	"	"	White Swan, Ltd	Turcotte & Frère
"	20	"	56821 C. Bélanger, 102 rue du Pont	"	15	Unknown	Unknown

DISTRICT OF THREE RIVERS—

Oct.	9	Borax	5457 N. Provost, St-Gabriel, Brandon	3 pkgs	12	Chausse & Co.	"
"	10	"	5460 J. H. Deblais, St-Thomas, Joliette	"	15	Bee Starch Co., Montréal	"
"	10	"	5462 L. J. Poulette, St-Thomas, Joliette	"	"	"	"
"	13	"	5472 Carignan Fils, Three Rivers	"	"	J. B. Renaud & Co. Quebec	"
"	13	"	5474 Bellefeuille Giroux, Three Rivers	"	"	Herron Loblane, Montreal	"

BORAX

Inspector's Report (is not an ex- pression of opinion)	Results of Analysis					Number of Sample	Remarks and Opinion of the Chief Analyst
	Description on Label	Carbonate of Soda	Arsenic per 100 parts As ₂ O ₃	Water of Crystallization	Sodium Borate Na ₂ B ₄ O ₇		
R. J. WAUGH, INSPECTOR							
	Guaranteed pure		10			76351	Genuine; with excess arsenic.
	Absolutely pure.	Approx. 35	2			76352	Contains Carbonate of soda. Adulterated
	For laundry, bath & shampoo		2			76353	Genuine
	" "		5			76354	Genuine
	" "		5			76355	Genuine
JOHN C. FERGUSON, INSPECTOR							
	For laundry, mouth wash, etc. English Borax	Approx. 45	10			69546	Contains Carbonate of soda, and excess arsenic. Adulterated
	" "		4			69547	Genuine
	" "		100			69548	Genuine, with great excess arsenic.
	absolutely pure "Compound" in small letters	Approx. 50	4			69549	Contains carbonate of soda, marked "compound"
	Refined powdered borax		20			69550	Genuine, with excess arsenic.
F. X. W. E. BELAND, INSPECTOR							
	absolutely pure		5			56817	Genuine
	Borax en poudre		75			56818	Genuine with great excess arsenic.
	"Compound" in small letters	Approx. 45	5			56819	Contains Carbonate of soda; marked "compound"
	Refined powdered borax		20			56820	Genuine, with excess arsenic.
	" "		20			56821	Genuine, with excess arsenic
Dr. V. P. LAVALLEE, INSPECTOR							
	Pure Borax, for washing	Present	Trace			5457	Contains carbonate of soda. Adulterated
	99 % pure		"			5460	Genuine
	99% pure	14.60	40	35.90	50.50	5462	Contains Carbonate of soda, and excess arsenic. Adulterated
	Pure Borax		Trace			5472	Genuine
	Pure ground Borax	None	None	29.05	70.70	5474	Genuine

Date of Collection	Nature of Sample	Number of Sample	Name and Address of Vendor	Cost		Name and Address of Manufacturer or Furnisher as given by the Vendor	
				Quantity	cts.	Manufacturer.	Furnisher

DISTRICT OF MONTREAL —

1916							
Oct.	11	Borax	74926 H. R. Smith, Coteau junction, P. Q.	4 Pkgs	10	D. C. Bromeau & Co.	.....
"	11	"	74927 O. Beriault, Coteau Junction P. Q.	3	15	.....	L. Chaput & Fils.
Nov.	8	"	74928 A. Charland, 345 Ont. St., E. Montreal	"	"	Sultana Ltd.	.....
"	8	"	74929 Rosario Desautels, 424 Ont. St., E., Montreal	"	"	Bee Starch Co.	.....
"	8	"	74930 P. E. Dery, 471 Ont. St., E. Montreal	"	"	Herron Leblanc	.....

DISTRICT OF OTTAWA —

Oct.	31	Borax	73747 J. H. McKeen, 901 Bank St. Ottawa	3 Pkgs	30	Bee Starch Co. Montreal	.....
"	31	"	73748 " " "	"	"	Gorman Eckert & Co., Ltd. London, Ont.	.....
"	31	"	73749 " " "	"	15	Sultana Ltd., Montreal	.....
Nov.	1	"	73754 A. M. Parkinson Kemptville	"	15	T. W. Chamberlin Prescott Ont.	.....
"	1	"	73759 Wm. Cusick, Merrickville..	"	15	Nicholson & Brock Toronto	.....

DISTRICT OF KINGSTON —

Oct.	18	Borax	73703 E. Gregory Lindsay.....	3 Pkgs	15	Vendor	.....
"	19	"	73714 S. R. Artis, Belleville.....	"	30	Imp. Spice Co.	.....
"	19	"	73716 H. C. Hampton, Belleville..	"	30	Gorman Eckert Co, London, Ont.	.....
"	20	"	73724 A. MacLean, Kingston.....	"	"	Pugsley Dingman & Co., Toronto	.....
"	20	"	73725 A. E. Donnelly, Kingston	"	30	Sultana Ltd. Montreal	.....

DISTRICT OF TORONTO—

Oct.	20	Powdered Borax	75488 Jas. McKinlay, 237 Gerrard St., E. Toronto	3 Pkgs	15	.....	Carter Drug Co. Ltd. T.
"	23	"	75489 John Childs, 144 Queen St., E. Toronto	"	30	Imp. Spice Co. Ltd. Hamilton	.....
"	25	"	75491 The J. W. Lowes Co., Ltd. 90 Sherbourne St., Tor.	"	15	Vendors	.....
"	25	"	75492 Nicholson & Brock, 9 Francis St., Toronto	"	"	"	.....
"	25	"	75493 Dalton Bros, 11 Front St., E Toronto	"	"	"	.....

DISTRICT OF MANITOBA —

Oct.	24	Borax	75073 L. J. Netherton, Minitonas...	3pkgs	30	Campbell Bros. and Wilson, Winnipeg	.....
"	31	"	75074 Therien & Co., St Charles...	"	30	Blue Ribbon Co., Winnipeg	.....
"	19	"	71898 McDonald & Voygt Co., Dauphin	"	15	Gold Standard Co. Winnipeg	.....
"	21	"	71899 The Robt Timmins Co. Grand View	"	30	McLaren Ltd., Winnipeg	.....
"	21	"	71900 The Peoples Cash Store., Grand View	"	"	Cameron & Heap. Regina	.....

BORAX

Inspector's Report (Is not an expression of opinion).	Results of Analysis					Number of Sample	Remarks and Opinion of the Chief Analyst
	Description on Label	Carbonate of Soda	Arsenic pla. per 1,000,000 As, O 2 3	Water of Crystallization	Sodium Borate Na ₂ B ₄ O ₇		

D. J. KEARNEY, INSPECTOR

.....	Guaranteed pure	.....	Trace	.....	.....	74926	Genuine
.....	Absolutely pure	.....	"	.....	.....	74927	Genuine
.....	Pure borax	.....	Trace	.....	.....	74928	Genuine
.....	99 per cent pure	21.06	None	39.65	39.26	74929	Contains Carbonate of Soda. Adulterated
.....	Pure ground borax	8.60	None	35.10	56.30	74930	Contains Carbonate of Soda. Adulterated

J. A. RICEKEY, INSPECTOR

Bee Brand. 99 % pure	99 pc. pure	.....	Trace	.....	.....	73747	Genuine
Pulverized Pure Bo- rax Finest En-	Pulverized pure bo- rax	14.37	None	34.50	51.13	73748	Contains carbonate of soda. adulterated.
Sultana Red Seal Pure Borax	Pure borax	.....	25	.....	.....	73749	Genuine, with excess arsenic.
Pure	Pure borax	.....	10	.....	.....	73754	Genuine, with excess arsenic.
Golden Elk pure Borax	Pure borax	.....	10	.....	.....	73750	Genuine, with excess arsenic

J. A. RICEKEY, ACTING INSPECTOR

.....	Borax	.....	20	.....	.....	73703	Genuine, with excess arsenic.
Household borax	Household borax powder	23.33	None	40.20	36.57	73714	Contains carbonate of Soda. Adulterated
Finest English	Pulverized pure borax	16.80	None	35.90	47.21	73716	Contains carbonate of soda. Adulterated
Double refined and concentrated, Analytically pure.	Analytically pure,	.....	Trace	.....	.....	73724	Genuine
Red Seal Sultana pure	Pure borax	.....	190	.....	.....	73725	Genuine, with great excess arsenic.

H. J. DAGER, INSPECTOR

.....	Refined Borax	Refined powdered borax	.....	10	.....	.....	75488	Genuine, with excess arsenic
.....	Household borax	Household borax powder	24.27	None	42.65	33.08	75489	Contains carbonate of soda. Adulterated
.....	Pure refined	Pure refined borax	.....	Trace	.....	.....	75491	Genuine
.....	Golden Elk pure Borax	Pure borax	.....	10	.....	.....	75492	Genuine, with excess arsenic
.....	Daltons Improved pure borax	Improved pure borax	.....	8	.....	.....	75493	Genuine, with excess arsenic

J. B. COSGROVE, INSPECTOR

.....	Royal shield Borax	.....	2	.....	.....	75073	Genuine
.....	Blue Ribbon. Pure Borax	.....	50	.....	.....	75074	Genuine, with excess Arsenic
.....	Gold Standard Pulverized Borax.	.....	10	.....	.....	71898	Genuine, with excess arsenic
.....	McLarens Invincible Quality borax	.....	50	.....	.....	71899	Genuine, with excess arsenic.
.....	Trian. Pure Borax	.....	2	.....	.....	71900	Genuine

Date of Collection	Nature of Sample	Number of Sample	Name and Address of Vendor	Cost.		Name and address of Manufacturer or Furnisher as given by the Vendor	
				Quantity	cts.	Manufacturer	Furnisher

DISTRICT OF ALBERTA—

1916							
Oct.	18	Borax	52527 Cannon & Co. Carstairs	3 pkgs	30	Imp. Spice Co., Hamilton	.....
"	19	"	52528 J. B. Kelly, Carstairs	"	"	No Vary Products Co., Toronto	.....
"	19	"	52529 Davey Bros. Olds	"	25	"	.....
"	19	"	52530 W. M. Craig & Co., Olds	"	30	Pure Gold Mfg Co. Toronto	.....
"	19	"	52531 Wm Hodge & Son, Innisfail ..	"	30	Georgeson & Co Ltd. Calgary	.....

DISTRICT OF VANCOUVER—

Oct.	11	Borax	55681 Owl Drug Co. Main & Hastings Sta., Vancouver	3boxes	45	Vendors	.....
"	11	"	55682 Vancouver Drug Co, 400 Hastings St., Vancouver	"	15	"	.....
"	11	"	55683 Pacific Drug Stores Ltd., 601 Hastings St., Vancouver	"	30	"	.....
"	12	"	55682 Georgia Pharmacy, Georgia & Granville St. Vanc.	"	"	"	.....
"	12	"	55686 Broadway Pharmacy, Broadway & Granville St., V.	"	"	"	.....

BORAX

Inspector's Report (is not an expression of opinion)	Results of Analysis					Number of Sample	Remarks and Opinion of the Chief Analyst
	Description on Label	Carbonate of Soda	Arsenic p.p.m. per 1,000,000 As ₂ O ₃ = 4	Water of Crystallization	Sodium Borate Na ₂ B ₄ O ₇		
A. W. R. MARKLEY, IESPECTOR							
.....	Household Borax Powder	Present	2	.....	.....	52527	Contains Carbonate of Soda. Adulterated
Pure always good	No-Vary Quality. Pulverized Always good. Pure borax	Present	2	.....	.....	52527	Contains Carbonate of soda. Adulterated
No vary	"	"	2	.....	.....	52529	Contains Carbonate of soda. Adulterated
Pure gold guaranteed pure	Pure gold Borax guaranteed pure	.....	10	.....	.....	52530	Genuine with excess arsenic
Tuxedo Brand pulverized	Tuxedo. Pulverized Borax	.....	50	.....	.....	52530	Genuine, with excess arsenic
C. E. EMES, INSPECTOR							
.....	Borax	.....	Appro. 5	.....	.....	55681	Genuine
.....	Pure refined borax for laundry purposes.	.....	"	.....	.....	55682	Genuine
.....	For medicinal & Household purposes.	.....	"	.....	.....	55683	Genuine
.....	Pure refined borax for laundry	.....	"	.....	.....	55684	Genuine
.....	"	.....	"	.....	.....	55685	Genuine